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EXAMINER	
ELPENORD, CANDAL	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,806	GERLA ET AL.	
	Examiner	Art Unit	
	CANDAL ELPENORD	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on *23 September 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *July 31, 2007, August 20, 2007, September 14, 2007, January 28, 2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

2. Claims 1-2, 5-6, 11-12, 15-16 have been amended and claims 21-25 have been added.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 21-25** are rejected under 35 U.S.C. 102(e) as being anticipated by Ha et al (US 7,099,273 B2).

Regarding claim 21, Ha '273 discloses a method for controlling a data transmission session (see, method and apparatus for managing data stream (i.e. regulating the data transmission) based on congestion (i.e. timer-based flow control) and the current of the communication channel, col. 3, lines 33-52) by a sender (fig. 1, Server 102 transmits data stream to the client, col. 6, lines 12-41) to a receiver (fig. 1, Client 116 (i.e. receiver) for receiving transmitted data stream, col. 6, lines 12-41) over a communications network (fig. 1, Network 112, col. 6, lines 12-41) the method (see,

timer-based flow control, col. 3, lines 33-52) comprising: receiving by the sender (fig. 1, Server 102) from the receiver (fig. 1, Client 116) via the communications network a plurality of data transmission acknowledgements (see, acknowledgements for data packets that have been successful received by the receiver, col. 22, lines 21-36); generating by the sender a connection rate estimate based on one or more of the plurality of acknowledgments transmitted to the sender during a specified time interval (see, estimated transmission rate based on the number of data packets acknowledged by the client (i.e. receiver, col. 6, lines 12-41), col. 19, lines 50 to col. 20, lines 10, col. 13, lines 41-50, see, transmit time use to determine congestion and controlling the transmission rate, col. 12, lines 63 to col. 13, lines 15); generating by the sender (fig. 1, Server 120, col. 5, lines 12-41) a connection bandwidth estimate (see, the server (i.e. sender) using the round-trip-time to determine bandwidth estimate of the communication channel, col. 3, lines 34-52); calculating an estimate of an achieved throughput based on the connection rate estimate (see, "measure of the total amount of data sent from all active connections over the channel", col. 25, lines 2-7); determining a cause of packet loss (noted: detection of packet loss due duplicate acknowledgement of signals, col. 10, lines 47-62) based on a comparison of the estimate of the achieved throughput to an expected throughput (noted: comparison of congestion to the congestion window threshold which influences the transmission rate of data packets, col. 10, lines 6-28); selecting the connection rate estimate if the comparison identifies a first cause of packet loss (noted: adjusting of system variables including reducing the congestion window, col. 10, lines 48-62) ; selecting the bandwidth estimate if the

comparison identifies a second cause of packet loss (noted: resetting of the congestion window due to detection of second packet loss, col. 8, lines 7-24); and setting a data transmission control parameter based on the selected estimate (noted: setting of the congestion window based the transmission rate, col. 10, lines 31-46, see, adjustment of the transmission rate, col. 4, lines 32-55, noted: employed transmission rate based on the ratio of congestion window, col. 14, lines 11-19).

Regarding claim 22, Ha '273 discloses the method (see, timer-based flow control, col. 3, lines 33-52), wherein the first cause of packet loss is network congestion (see, packet loss based on congestion, col. 4, lines 11-16) and the second cause of packet loss is error in the data transmission (noted: duplicate acknowledgment signals indicating number of loss packets, col. 16, lines 14-21, see, receiving out-of sequenced data packets, col. 18, lines 13-28).

Regarding claim 23, Ha '273 discloses the method (see, timer-based flow control, col. 3, lines 33-52), wherein the connection rate estimate is based on one or more indications included in the one or more of the plurality of acknowledgements (see, the estimated transmission rate based on the number of data packets acknowledged, col. 19, lines 50 to col. 20, lines 10) transmitted to the sender during the specified time interval, each of the one or more indications being an indication of an amount of data delivered to the receiver (noted: see acknowledgement signals based on the number of data packets received by the client (i.e. receiver), col. 19, lines 50 to col. 20, lines 10).

Regarding claim 24, Ha '273 discloses the method (see, timer-based flow control, col. 3, lines 33-52), wherein the generating of the bandwidth estimate includes generating a plurality of bandwidth samples (noted: determined transmission rate based on acknowledged messages, col. 12, lines 24-40) based on one or more acknowledgment pairs taken from the plurality of acknowledgements (noted: managing the data transport based on acknowledgement signals, col. 9, lines 53-61)

Regarding claim 25, Ha '273 discloses the method (see, timer-based flow control, col. 3, lines 33-52), wherein the specific time interval is dynamically adapted based on a perceived network congestion level (see, dynamically adjusting the time based on congestion window, col. 10, lines 31-46, col. 16, lines 34-48).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claims 1-3, 5-10, 11-16, 15-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergsson et al (US 2002/0071388 A1) in view of Ha et al (US 7,099,273 B2).

Regarding claim 1, Bergsson '388 discloses a method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8) of controlling ("adjust the rate of the transmission", recited in paragraph 0017, lines 3-8) a data transmission session ("communications session", recited in paragraph 0029) by a sender ("sending terminal", recited in paragraph 0017, lines 3-8) to a receiver ("receiving terminal", recited in paragraph 0017, lines 3-8) over a communications network ("packet data switched network", recited in paragraph 0035) comprising: receiving by the sender ("sending terminal", recited in paragraph 0017, lines 3-8) from the receiver ("receiving terminal", recited in paragraph 0017, lines 3-8) via the communications network ("packet data switched network", recited in paragraph 0035) a plurality of data transmission acknowledgements ("messages

acknowledgement packet receipt to calculate throughput rate", recited in paragraph 0023); and setting by the sender ("sending terminal", recited in paragraph 0017, lines 3-8) a data transmission control parameter ("congestion windows", recited in paragraph 0018) using the first connection rate estimate ("throughput rate", recited in paragraph 0018).

Regarding claim 2, **12**, Bergsson '388 discloses the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8), wherein generating ("calculation of throughput rate", recited in paragraph 0023) by the sender ("sending terminal", recited in paragraph 0017, lines 3-8) of a connection rate estimate ("messages acknowledgement packet receipt to calculate throughput rate", recited in paragraph 0023) further comprises: generating a rate sample ("using a first and second sets of packets to calculate multiple throughputs", recited in paragraph 0032) when an acknowledgement arrives based on the indication in the acknowledgement regarding an amount of data ("the number of bits in each packet", recited in paragraph 0032, lines 1-25) received by the receiver data and an acknowledgement inter-arrival time ("updated round-trip-time obtained each time an acknowledgement packet is received", recited in 0035); and exponentially averaging the rate sample ("average calculation", recited in paragraph 0032, lines 6-25) with a previous rate sample to produce smoothed rate estimate ("using plurality sets of packets to provide a smooth function", recited in paragraph 0032, lines 10-25) using a filter ("using the leaky bucket to adjust the congestion window", recited in paragraph 0022-the leaky bucket algorithm plays the

same role as that of the instant application) with time varying coefficients ("updating the RTT/Round Trip-Time each time packet is received", recited in paragraph 0035).

Regarding claim 3, 13, Bergsson '388 discloses the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8), further comprising generating a second connection rate estimate ("calculation of throughput rate of change", recited in paragraph 0019) by the sender ("sending terminal", recited in paragraph 0017, lines 3-8); determining by the sender ("sending terminal", recited in paragraph 0017, lines 3-8) a cause of packet loss ("unacknowledged data transmission in bytes", recited in paragraph 0036) using the first connection rate estimate ("calculated throughput rate", recited in paragraph 0019) and the second connection rate estimate ("calculation of throughput rate of change", recited in paragraph 0019); and setting by the sender a congestion window ("the transmitting terminal utilizes two different estimates to calculate two different estimated congestion windows", recited in paragraph 0018, lines 3-12) and a slow start ("slow down in the throughput rate", recited in paragraph 0037) threshold control parameter ("calculation of congestion window due to the rate of change of the throughput", recited in paragraph 0036) using the determination of the cause of packet loss ("unacknowledged data transmission in bytes", recited in paragraph 0036).

Regarding claim 4, 14, Bergsson '388 discloses the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8), wherein determining by the sender

("sending terminal", recited in paragraph 0017, lines 3-8) a cause of packet loss ("unacknowledged data transmission in bytes", recited in paragraph 0036, "present state of the system", recited in paragraph 0023, "present state of rate change of the system", recited in paragraph 0042), calculating a ratio of expected throughput ("calculated ratio of TPn/TPn-1", recited in paragraph 0038) to achieved throughput ("throughput value at the receiver each time a packet is calculated", recited in paragraph 0038, lines 1-5).

Regarding claim 5, 15, Bergsson '388 discloses the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8), further comprising generating a plurality of bandwidth samples ("calculated pipe lengths", recited in paragraph 0039) using acknowledgement pairs ("transmitting and receiving acknowledgement", recited in paragraph 0039) taken from the plurality of acknowledgements; and generating a bandwidth estimate ("second of the calculated pipe length", recited in paragraph 0040) using a low pass filter ("using the leaky bucket to adjust the congestion window", recited in paragraph 0022-the leaky bucket algorithm plays the same role as that of the instant application, "change in the congestion window size", recited in paragraph 0040) and the plurality of bandwidth samples ("calculated pipe lengths", recited in paragraph 0039).

Regarding claim 6,16, Bergsson '388 discloses the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8), further comprising: generating a plurality

of rate estimates using amounts of data acknowledged ("calculations based upon messages that acknowledge receipt of transmitted packets", recited in abstract, lines 10-14) during sampled time intervals ("the total time and the time of receipt of each packet", recited in paragraph 0030, lines 6-9, paragraph 0032, lines 6-8); and generating the first connection rate estimate ("calculated throughput being applied to a transmission rate", recited in paragraph 0023, lines 6-9, "calculations based upon messages that acknowledge receipt of transmitted packets", recited in abstract, lines 10-14) by applying a low pass filter ("sliding window model", recited in paragraph 0032, lines 6-12) to the plurality of rate estimates ("throughput calculations', recited in paragraph 0032, lines 10-25).

Regarding claim 7, 17 Bergsson '388 discloses the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8), further comprising adapting the sampled time intervals ("each time of receipt of a packet", recited in paragraph 0032, lines 6-9, "round trip time", recited in paragraph 0035, lines 3-11) using a perceived network congestion level ("calculation of potential congestion widows which account for worst case congestion window", recited in paragraph 0023), the perceived congestion ("calculation of potential congestion widows which account for worst case congestion window", recited in paragraph 0023) level determined from a difference between an expected throughput ("present state of rate change of the system", recited in paragraph 0042) and an achieved throughput of data ("present state of the system", recited in

paragraph 0023) from the sender ("sending terminal", recited in paragraph 0017, lines 3-8) to the receiver ("receiving terminal", recited in paragraph 0017, lines 3-8).

Regarding claim 8,18 Bergsson '388 discloses the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8), further comprising setting the congestion window ("new congestion window from the estimated congestion windows", recited in paragraph 0018, lines 8-12) and the slow start threshold ("predetermined value", recited in paragraph 0046, lines 9-14)during startup of a connection (fig. 2, Start of communications session", recited in paragraph 0029, lines 3-7, paragraph 0030, lines 8-12) between the sender ("sending terminal", recited in paragraph 0017, lines 3-8) and the receiver ("receiving terminal", recited in paragraph 0017, lines 3-8) over the communications network ("communications session over a packet switched data network", recited in paragraph 0029, lines 3-7).

Regarding claim 9, 19, Bergsson '388 discloses the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8), wherein the data transmission session ("communications session", recited in paragraph 0029, lines 3-7) is for video data, the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8) further comprising: establishing a data connection (fig. 2, "full-duplex communications session where both parties are communicating", recited in paragraph 0029, lines 3-13) between the sender

("sending terminal", recited in paragraph 0017, lines 3-8) and the receiver ("receiving terminal", recited in paragraph 0017, lines 3-8) via the communications network ("communications session over a packet switched data network", recited in paragraph 0029, lines 3-7); establishing a data control connection ("Transmission Control protocol or TCP", recited in paragraph 0034) between the sender ("sending terminal", recited in paragraph 0017, lines 3-8) and the receiver ("receiving terminal", recited in paragraph 0017, lines 3-8); transmitting by the sender ("sending terminal", recited in paragraph 0017, lines 3-8) to the receiver ("receiving terminal", recited in paragraph 0017, lines 3-8) video data via the data connection ("communications session", recited in paragraph 0029, lines 3-7, paragraph 0030); and receiving ("throughput transmitted back to the transmitter", recited in paragraph 0034) by the sender ("sending terminal", recited in paragraph 0017, lines 3-8) from the receiver ("receiving terminal", recited in paragraph 0017, lines 3-8) the acknowledgements via data control connection ("acknowledgement of packet with respect to Transmission Control Protocol or TCP", recited in paragraph 0034).

Regarding claim 10, Bergsson '388 discloses the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8), wherein the acknowledgements include data control packets ("acknowledgement of packet with respect to Transmission Control Protocol or TCP", recited in paragraph 0034), the method ("method for facilitating packet communications between transmitting terminal and receiving terminal", recited in paragraph 0017, lines 3-8) further comprising: determining by the sender ("sending

terminal", recited in paragraph 0017, lines 3-8) a bandwidth estimate using the data control packets; and altering ("updated of the calculated throughput rate", recited in paragraph 0044, lines 13-29) by the sender ("sending terminal", recited in paragraph 0017, lines 3-8) a data transmission rate ("updated of throughput rate", recited in paragraph 0044, lines 13-29) and a bit rate of the transmitted video data ("number of bits in each packet", recited in paragraph 0032, lines 3-12).

Regarding claim 11, Bergsson '388 discloses a data processing apparatus for controlling ("adjust the rate of the transmission", recited in paragraph 0017, lines 3-8) a data transmission session ("communications session", recited in paragraph 0029) by a sender ("sending terminal", recited in paragraph 0017, lines 3-8) to a receiver ("receiving terminal", recited in paragraph 0017, lines 3-8) over a communications network ("packet data switched network", recited in paragraph 0035), comprising: a processor (fig. 2, Calculate Throughput 204, recited in paragraph 0031, "calculated throughput rate comprises a processor", recited in page 4, paragraph 0047, lines 18-22); and a memory ("memory of the transmitting terminal", recited in paragraph 0035, lines 1-7, fig. 3, Flow Chart) coupled to the processor ("calculated throughput rate comprises a processor", recited in page 4, paragraph 0047, lines 18-22), the memory having program instructions executable ("program capable of determining", recited in paragraph 0023, lines 1-5) by the processor stored therein ("calculated throughput rate comprises a processor", recited in page 4, paragraph 0047, lines 18-22), the program instructions ("program capable of determining", recited in paragraph 0023, lines 1-5) comprising: receiving by the sender ("sending terminal", recited in paragraph 0017, lines

3-8) from the receiver ("receiving terminal", recited in paragraph 0017, lines 3-8) via the communications network ("packet data switched network", recited in paragraph 0035) a plurality of data transmission acknowledgements ("messages acknowledgement packet receipt to calculate throughput rate", recited in paragraph 0023); and setting by the sender ("sending terminal", recited in paragraph 0017, lines 3-8) a data transmission control parameter ("congestion windows", recited in paragraph 0018) using the first connection rate estimate ("calculated throughput rate", recited in paragraph 0023, lines 4-9).

Bergsson '388 discloses all the claimed limitations with the exception of being silent about the claimed features:

Regarding claim 1, wherein each of the plurality of data transmission acknowledgements including an indication of an amount of data delivered to the receiver; generating by the sender a first connection rate estimate of the network share based on then indication of the amount of data delivered to the receiver in each of the plurality of acknowledgements.

Regarding claims 4, 14, determining the cause of packet loss to be from congestion if the ratio exceeds a threshold value, and determining the cause of packet loss to be from data transmission errors if the ratio of expected to achieved throughput is below the threshold value.

Regarding claim 11, wherein each of the plurality of data transmission acknowledgements including an indication of an amount of data delivered to the receiver; generating by the sender a first connection rate estimate of the network share

based on then indication of the amount of data delivered to the receiver in each of the plurality of acknowledgements.

However, Ha '273 from the same field of endeavor discloses the above claimed features:

Regarding claim 1, wherein each of the plurality of data transmission acknowledgements including an indication of an amount of data delivered (noted: number of data packets delivered based on acknowledgement signals received by the sender, col. 21, lines 13-20, col. 22, lines 21-35) to the receiver (fig. 1, Client 116 communicates with the server 102 via the network using duplex transmissions with respect to data stream, col. 6, lines 12-41); generating by the sender a first connection rate estimate of the network share based on then indication of the amount of data delivered to the receiver in each of the plurality of acknowledgements (see, estimated transmission rate based on the number of data packets acknowledged by the client (i.e. receiver, col. 6, lines 12-41), col. 19, lines 50 to col. 20, lines 10, col. 13, lines 41-50, see, transmit time use to determine congestion and controlling the transmission rate, col. 12, lines 63 to col. 13, lines 15).

Regarding claims 4, 14, determining the cause of packet loss to be from congestion if the ratio exceeds a threshold value (noted: congestion based on exceeding threshold, col. 4, lines 17-25, see packet loss based on the comparison of the congestion window and the congestion window threshold, col. 10, lines 6-62), and

determining the cause of packet loss to be from data transmission errors if the ratio of expected to achieved throughput is below the threshold value (see packet loss based on the comparison of the congestion window and the congestion window threshold, col. 10, lines 6-62).

Regarding claim 11, wherein each of the plurality of data transmission acknowledgements including an indication of an amount of data delivered (noted: number of data packets delivered based on acknowledgement signals received by the sender, col. 21, lines 13-20, col. 22, lines 21-35) to the receiver (fig. 1, Client 116 communicates with the server 102 via the network using duplex transmissions with respect to data stream, col. 6, lines 12-41); generating by the sender a first connection rate estimate of the network share based on then indication of the amount of data delivered to the receiver in each of the plurality of acknowledgements (see, estimated transmission rate based on the number of data packets acknowledged by the client (i.e. receiver, col. 6, lines 12-41), col. 19, lines 50 to col. 20, lines 10, col. 13, lines 41-50, see, transmit time use to determine congestion and controlling the transmission rate, col. 12, lines 63 to col. 13, lines 15).

In view of the above, it would have been obvious to one of ordinary skill in the art at the tine the invention was made to modify the teaching features of Bergsson '388 by incorporating the teaching features of Ha '273 in order to provider time-based congestion flow control using congestion window as suggested in col. 4, lines 17-32 for motivation.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rhee et al (US 7,161,902 B2).

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CANDAL ELPENORD whose telephone number is (571)270-3123. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Bin Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Candal Elpenord/

Examiner, Art Unit 2416

/Kwang B. Yao/
Supervisory Patent Examiner, Art Unit 2416